

REMARKS

Summary of Amendments

The specification has been amended to correct instances of garbled text.

Claims 1, 2 and 4-10 have been amended for editorial clarity.

In particular, claims 1 and 2 have been amended to delete the phrase "that would otherwise be," which is a mistranslation (or what is perhaps better described as an over-translation) from the Japanese original. (This phrase has been replaced simply with the word "being" in claim 1.) It is feared that the phrase "would otherwise be" could be mistaken to mean that the through-holes/low-refractive-index substances nearest (claim 1) or secondarily adjacent (claim 2) to the point defect also are missing.

That is, in terms of Fig. 1 of the present specification, the point defect 4 is where three of the through-holes/low-refractive-index substances 2 corresponding to the lattice points are missing, as explained in paragraph [0035] therein, and as explained in paragraph [0039], at least one of the through-holes/low-refractive-index substances 2 formed nearest the point defect is displaced, in a direction corresponding to the arrows labeled with reference marks *l*, *m* and *n*, from the corresponding lattice point where it would otherwise be—but is not missing from the photonic crystal.

But in claim 1, saying that these through-holes/low-refractive-index substances 2 displaced *l*-, *m*- or *n*-ward are holes that "would otherwise be" immediately surrounding the defect 4 is to mistakenly suggest that the *l*-, *m*- or *n*-ward displaced through-holes 2 also are missing. This same concern applies *mutatis mutandis* to the technical import of what is set forth in claim 2 and described in the present specification in paragraph [0048] with regard to Fig. 8

Objections – Specification

Paragraph [0041] in the specification before the examiner, (which is numbered "[0042]" in the published version), has been amended to correct, as required by the Examiner, the two instances in which the Greek letter *mu* (μ) before "m"—meant to indicate micron units following given numerical values—is garbled. These amendments amount to formal corrections only; of course no new matter has been added. The illegibility of " μ " would seem to be an artifact of the submission of the present application by means of the USPTO's original version of its Electronic Filing System. When Applicants' representative submitted the present application, versions of the specification printed out via browser display and via "ePAVE" (the

USPTO's former electronic submission software)—and currently still viewable—on Applicant's end contained no illegible text.

Objections – Claims

Claim 10 was objected to for the informality of reciting "any of claims 1." Applicants thank the Examiner for pointing out this editorial problem, which was in fact also present in claims 4-9. Accordingly, claim 10 has been corrected as required in the Office action, and in addition, claims 4-9 have been likewise revised to correct the similar editorial problem.

Double Patenting

Claims 1-11 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of Pre-Grant Pub. No. 2004/0184754 (co-pending Pat. App. No. 10/708,618).

Form PTO/SB/25, "Terminal Disclaimer to Obviate a Provisional Double Patenting Rejection over a Pending 'Reference' Application," completed in compliance with 37 C.F.R. § 1.321(c) and accompanied by the appropriate fee, is attached to this paper. Accordingly, it is believed that the rejection under this section of the Office action is overcome.

Applicants' undersigned representative apologizes for not having addressed the objections to the specification and claims, and the double patenting rejection, in Applicants' reply to the previous Office action.

Rejections under 35 U.S.C. § 103

Claims 1-11; Akahane et al. (*Applied Physics Letters*) in view of Srinivasan and Painter (*Optics Express*)

Claims 1-11 have been rejected as being obvious over Akahane et al., "Design of a channel drop filter by using a donor-type cavity with high-quality factor in a two-dimensional photonic crystal slab," *Applied Physics Letters*, Vol. 82, No. 9, March 3, 2003, pp. 1341-1343, in view of Srinivasan and Painter, "Momentum space design of high-Q photonic crystal optical cavities," *Optics Express*, Vol. 10, No. 15, July 29, 2002, pp. 670-684.

Except for the "Priority" and "Response to Arguments" sections, the present § 103 rejections—and indeed the entire Office action itself—is an identical repetition of the first Office action.

App. No. 10/708,124
Amendment dated May 22, 2006
Reply to Office action of February 21, 2006

In answer to the § 103 rejections, Applicants pointed out, in their reply of February 3, 2006, that the publication date of the Akahane et al. paper is, as noted in the upper right-hand corner of the paper, March 3, 2003. The priority date of the present application is February 10, 2003.

Under the Priority section of the current Office action, the form paragraph under MPEP 201.15 has been cited, which says:

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The MPEP under this section concludes,

If the priority papers are already in the file when the examiner finds a reference with the intervening effective date, . . . [and if] the papers are not in the English language and there is no translation, the examiner may reject the unpatentable claims and at the same time require an English translation for the purpose of determining the applicant's right to rely on the foreign filing date.

Translation of Foreign Priority Papers Pursuant to C.F.R. § 1.55 (a)(4)

Applicants' undersigned representative hereby states that:

- 1) The specification as filed is an English-language translation of the certified copy of the Japanese patent application on which Applicants' foreign priority claim is based and which is of record in the present application; and
- 2) He is fluent in written Japanese and is an experienced translator of Japanese patent specifications into English, and in fact translated the certified copy himself to produce the specification for the instant application.

Accordingly, as being qualified to do so, Applicants' undersigned representative hereby verifies that the translation of the certified copy is accurate.

Therefore, it is respectfully submitted that Applicants can now properly rely on the foreign priority papers to overcome the present rejections. That is, as asserted in Applicants' February 3, 2006 reply, the Akahane et al. paper is not be available as prior art under 35 U.S.C. § 102, and therefore is not available under 35 U.S.C. § 103. Consequently, the rejection of claims 1-11 should be withdrawn.

App. No. 10/708,124
Amendment dated May 22, 2006
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Accordingly, Applicant courteously urges that this application is in condition for allowance. Reconsideration and withdrawal of the rejections is requested. Favorable action by the Examiner at an early date is solicited.

Respectfully submitted,

May 22, 2006

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